PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-168253
(43)Date of publication of application : 14.06.1994

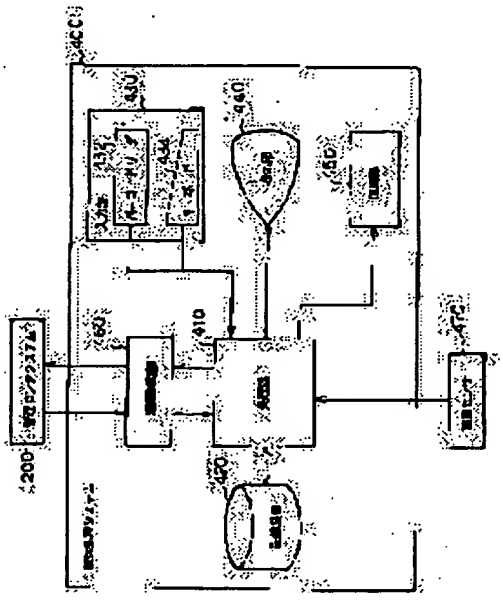
(51)Int.Cl. G06F 15/21
B09B 5/00

(21)Application number : 04-320931
(22)Date of filing : 30.11.1992

(71)Applicant : HITACHI LTD
(72)Inventor : SATO SHIGERU

(54) METHOD AND SYSTEM FOR MANAGING PRODUCT DISASSEMBLY

(57)Abstract:
PURPOSE: To confirm whether disassembly processing is suitably performed or not by extracting the disassembly information of a product to be disassembled from stored disassembly information and providing information concerning the processing method of correspondent parts.
CONSTITUTION: When a product is given from a consumer as a waste, a treatment trader receives this product. In this case, the product car code of the abandoned product is read by using a bar code reader 432. The read product bar code is sent to a treating part 410. The treating part 410 retrieves the disassembly information stored inside a storage device 420 with the product code as a key. When the disassembly information exists, the information is read out and displayed at a display part 440. Next, the treatment trader disassembles the collected product according to the displayed disassembly procedure. Each time the parts codes of disassembled parts are inputted, the treating part 410 checks whether the product is disassembled in the right procedure or not by comparing the codes with the disassembling order provided by the disassembly information.



LEGAL STATUS

[Date of request for examination]	30.06.1998
[Date of sending the examiner's decision of rejection]	
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]	
[Date of final disposal for application]	
[Patent number]	3155637
[Date of registration]	02.02.2001
[Number of appeal against examiner's decision of rejection]	

[Date of requesting appeal against examiner's decision of rejection]
[Date of extinction of right]

[JP,06-168253,A]

CLAIMS

[Claim(s)]
[Claim 1] When accumulating the demolition information which includes at least the information which shows the demolition procedure with the data which specify a product and disassembling a product about a product, the data which specify a product are used as a key. From the demolition information accumulated, take out the demolition information on the product concerned which it is going to disassemble, and, on the other hand, the data which specify it are inputted one by one about the parts separated from the product by demolition. The product demolition management method characterized by checking whether the demolition is performed appropriately as compared with the demolition procedure of the demolition information taken out the account of a top.
[Claim 2] The product demolition management method characterized by giving a code to a product and its part, respectively, reading the code in a claim 1 at the time of demolition, and inputting the data which specify parts.
[Claim 3] When accumulating the demolition information which includes at least the information which shows the art of the part with the data which specify a product and disassembling a product about a product, the data which specify a product are used as a key. From the demolition information accumulated, take out the demolition information on the product concerned which it is going to disassemble, and, on the other hand, the data which specify it are inputted one by one about the parts separated from the product by demolition. The product demolition management method characterized by acquiring the information on the art of corresponding parts from the demolition information taken out the account of a top.
[Claim 4] The data which specify a product in claims 1, 2, or 3 are a product demolition management method which is data coded including the information on either a product name, a manufacture maker name, form, a manufacture fiscal year and a serial number at least.
[Claim 5] The data which specify parts in claims 1, 2, 3, or 4 are a product demolition management method which is a thing containing the part number given to parts, and the data in which the material of the part is shown.
[Claim 6] The product demolition managerial system characterized by providing the following. The maker system which the maker who pays a product has The written demolition processing system which disassembles a product and which it is and a contractor has It is a means to have the demolition managerial system of a maker system and a demolition processing system which does and performs accumulation and offer of information required for demolition, and for a maker system to create the product data which match this demolition information with a product and its part while creating the demolition information which shows the demolition procedure of a product, and the disassembled art of parts, and to provide a demolition managerial system with them. Based on product data, it has the production control system which codes and gives the product data concerned to each product. a demolition managerial system It has a means to accumulate the demolition information and product data which are sent from a maker system. a demolition processing system A means to read from the demolition information which is having the demolition information on the product corresponding to the product code inputted as a means to receive and accumulate the demolition information for every product from the above-mentioned demolition managerial system, and a means to input the product code and part code of a product which should be disassembled accumulated, and to display a demolition procedure
[Claim 7] The product demolition managerial system which has further a means to judge whether the demolition is appropriately performed as compared with the demolition procedure of the demolition information on the product, in a claim 6 when a part code is inputted.
[Claim 8] The product demolition managerial system which has further a means to take out and display the art of the part from the demolition information on the product, in claims 6 or 7 when a part code is inputted.

[Claim 9] It is the product demolition managerial system a demolition processing system is further equipped with a means to send a demolition processing result including the judgment result of whether the demolition was appropriately performed after the demolition was completed to the above-mentioned demolition managerial system, in a claim 7, and the above-mentioned demolition managerial system inspects the sent demolition processing result, and have further the function whether suitable demolition processing is performed and to check.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] this invention relates to the product demolition management method at the time of recycling, and the system for it about a possible component while disassembling and processing an industrial product proper.
[0002]
[Description of the Prior Art] In recent years, the industrial product is constituted by various material, such as a metal besides natural materials, such as a tree and paper, plastics, ceramics, glass, and a semiconductor. When discarding such an industrial product, the mere abandonment in a disposal field and using for reclamation etc. are performed conventionally. However, there is a limitation that a place, a reclaimed ground, etc. to discard decrease, only now. On the other hand, considering a deployment of resources, there is also a view of wanting to reuse the material which can be used as much as possible. Furthermore, there are also simple abandonment and a request of wanting to lessen incineration as much as possible, from a viewpoint of environmental protection.
[0003] Then, things reusable as resources when discarding an industrial product, while collecting them and making it dissolve by the fixed demolition contractor are collected, and while disposing of what is not reusable by the optimal disposal method and decreasing the amount of waste as much as possible, after performing a cure required for environmental preservation, to be made to perform final disposal is desired.
[0004] Conventionally, the processor is collecting the industrial waste of an industrial product from a user, a collection agency, etc. And about the art, the contractor is left including the abandonment place. About the content of processing, it is difficult to check appropriately. Moreover, according to the kind of waste, the place which collects recovery costs from a user is in a self-governing body. However, about the art, it is common for it not to necessarily be directed suitable for a contractor and to leave.
[0005] By the way, as a Prior art about demolition of this kind of product, there is the resources-recovery method from a useless article TV indicated by JP,56-115682,A. Rough, it decomposes, grouping of each decomposed component part is carried out, and this technology performs processing suitable for each group for a product.
[0006]
[Problem(s) to be Solved by the Invention] However, on the occasion of demolition of a product, the way for which a demolition processor knows the art of a suitable demolition procedure and its part is not prepared as a system the place by today. Therefore, a demolition contractor will process suitably in self responsibility. Therefore, although it is used about the member when a noble-metals material useful for the contractor who performs recovery and processing is used for the member of a product, it tends to happen that the other thing is not processed appropriately. Moreover, since it is not known that it is the material which can be used as re-resources, there is a problem which is discarded vainly helplessly or causes environmental pollution further for not performing suitable processing in the case of disposal.
[0007] Moreover, although it is required to face to employ such a system smoothly and to pay costs appropriately, processing about it could be performed.
[0008] The 1st purpose of this invention is to offer the product demolition management method which offers information, and its system so that the demolition procedure of industrial waste and processing of parts can carry out appropriately.
[0009] The 2nd purpose of this invention is to offer the product demolition management method which can check whether demolition processing is performed appropriately, and its system.
[0010]
[Means for Solving the Problem] In order to attain the 1st purpose of the above, according to one mode of this invention, about a product When accumulating the demolition information which includes at least the information which shows the art of the part with the data which specify a product and disassembling

a product, the data which specify a product are used as a key. From the demolition information accumulated, take out the demolition information on the product concerned which it is going to disassemble, and, on the other hand, the data which specify it are inputted one by one about the parts separated from the product by demolition. The product demolition management method characterized by acquiring the information on the art of corresponding parts from the demolition information taken out the account of a top is offered.

[0011] Moreover, the maker system which the maker who pays a product has according to other modes of this invention, It does as the written demolition processing system which disassembles a product and which it is and a contractor has, and a maker system and a demolition processing system. It has the demolition managerial system which performs accumulation and offer of information required for demolition. a maker system While creating the demolition information which shows the demolition procedure of a product, and the disassembled art of parts The product data which match this demolition information with a product and its part are created. It has a means to provide a demolition managerial system with them, and the production control system which codes and gives the product data concerned to each product based on product data. a demolition managerial system It has a means to accumulate the demolition information and product data which are sent from a maker system. a demolition processing system A means to receive and accumulate the demolition information for every product from the above-mentioned demolition managerial system, It reads from the demolition information which is having the demolition information on the product corresponding to the product code inputted as a means to input the product code and part code of a product which should be disassembled accumulated, and the product demolition managerial system characterized by having a means to display a demolition procedure is offered.

[0012] Moreover, in order to attain the 2nd purpose of this invention, according to other modes of this invention When accumulating the demolition information which includes at least the information which shows the demolition procedure with the data which specify a product and disassembling a product about a product, the data which specify a product are used as a key. From the demolition information accumulated, take out the demolition information on the product concerned which it is going to disassemble, and, on the other hand, the data which specify it are inputted one by one about the parts separated from the product by demolition. The product demolition management method characterized by checking whether the demolition is performed appropriately as compared with the demolition procedure of the demolition information taken out the account of a top is offered.

[0013] Moreover, according to the mode of further others of this invention, if a part code is inputted, as compared with the demolition procedure of the demolition information on the product, the product demolition managerial system which has further a means to judge whether the demolition is performed appropriately will be offered.

[0014] Each mode concerning the method of this invention gives a code to a product and its part, respectively, can read the code at the time of demolition, and can input the data which specify parts. Moreover, the data which specify a product can be data coded including the information on either a product name, a manufacture maker name, form, a manufacture fiscal year and a serial number at least. The data which specify parts shall contain the part number given to parts, and the data in which the material of the part is shown.

[0015] Each mode concerning the system of this invention can have further a means to take out and display the art of the part from the demolition information on the product, if a part code is inputted. Moreover, if a part code is inputted, it can have further a means to take out and display the art of the part from the demolition information on the product. Furthermore, a demolition processing system can be further equipped with a means to send a demolition processing result including the judgment result of whether the demolition was performed appropriately to the above-mentioned demolition managerial system, after a demolition is completed. Moreover, the above-mentioned demolition managerial system can inspect the sent demolition processing result, and can have further the function to check whether suitable demolition processing is performed.

[0016]

[Function] By this invention, waste and the member which constitutes it can be recognized uniquely, and the group of the member which is easy to use as re-resources can be provided with the method of checking having decomposed and processed indirectly. Moreover, calculation of the processing costs according to the grade of processing and payment of the costs to a processor can be ensured.

[0017] That is, according to this invention, the code which consists of the name of a product, a manufacture maker name, form, a manufacture fiscal year, and a serial number is displayed on the predetermined position of the main part of a product. It is possible to specify each product as a meaning with the combination of these codes. Moreover, the method which displays the sign which shows the

composition, and the code which shows a material name on the member which constitutes this product, and the method of disassembling and processing a product by using this together combining what coded decomposition and the art appropriately can be specified. This is registered into a management center and is database-ized. namely, a member -- comrades are displayed by the parentage, and the decomposition and an art can be specified and registered

[0018] In case this product is decomposed and processed and is reused, beforehand, a processor can receive authorization of a process or a facility at a management center, and can also make it the business which registers the method of processing which can actually be performed. According to this, a suitable method is not authorized, even if a processor processes by different method from these conventions to the collected waste, reports to an engine and charges costs. Thereby, the check of an art is possible. moreover, a member -- decomposition of comrades and an art are displayed by the parentage, and if processing costs will be registered to this relation, calculation of processing costs will also be attained

[0019]

[Example] The whole flow composition of the processing in the managerial system for performing the product demolition management method of one example of this invention hereafter to drawing 1 explained with reference to drawing 1 - drawing 6 about the example of this invention is shown. In drawing, the double line shows the flow of a product and single track shows an information flow.

[0020] In the system of this example, there are processing by Maker A, processing by Processor D, and processing in the management center B among them. The management center B performs management of data, such as an art, management of a processing result, and management of processing costs. Here, important things are management of the data of an art, and management of a processing result. In this example, this is intensively performed in the management center B. It has the maker system 100, the management center system (demolition managerial system) 200, and the demolition processing system 400 (drawing 4 , five references) the management center B, Maker A, and whose processor D are respectively local managerial systems. These local managerial systems are connectable through a communication line. Various data can be processed on-line through this communication line.

[0021] Since the purpose which connects each local managerial system on-line is in informational transfer, if it is a means by which the purpose is attained, it will not be limited to this. For example, it is good also as composition which performs communication of information between each local managerial system through the storage which can memorize information, such as a flexible disk, an optical disk, and an IC card. Moreover, media, such as a cut-form, can also be used. In this case, what is necessary is just to display data possible [electronic processing] with the optical character reader which processs a part electronically and is displayed on the cut-form. Of course, these storages and on-line system can also be used together.

[0022] The outline of an example of the maker structure of a system which is the component of this example is shown in drawing 4 . The computer-aided design 110 to which this maker system 100 supports the design of a product (you may be the design system which performs the design itself), The production control system 130 which manages actual production based on the design data, The demolition information creation system 120 which generates data required for demolition of a component reusable as the procedure of demolition, an art, and resources from a design data etc., It has the demolition information registration system 150 which registers the created demolition information into a database 152, and the sales management system 140 which is connected with the terminal 142 of a dealer, collects sales data, and outputs shipment information. Each of these systems can consist of computer systems, respectively, and can deliver now and receive data through a communication device or a storage. Although the computer system is not illustrated, the general-purpose system which has a central-process unit, a primary storage, an interface, external storage, an input unit, display, a printer, a communication controller, etc. can be used for it, for example.

[0023] Computer-aided design 110 supports a design, respectively about the design of the functional division of a product, a mechanical design, a packaging design, an appearance design, etc. At this time, this support system supports a mechanical design, a logical design, drawing creation, a quality-of-the-material design, a sheathing processing design, etc. At this time, the used data especially drawing data, quality-of-the-material data, packaging-design data, sheathing processed data, etc. can be used on the occasion of demolition. Moreover, in this computer-aided design 110, a unique code is attached about each part article for the discernment. For example, it consists of signs with which the part number is expressed at least among the part number, material, etc. This code is given to each part article in forms, such as a bar code, in a production line. A code can be given to parts by ****** which attaches a bell when printing directly on parts or specifically printing a bar code. Moreover, the data for discriminating the product are attached in code for every product. The data for this discernment consist of signs showing all or the parts of for example, a maker name, a product name, form, a serial number, a manufacture fiscal

year, etc. And the data showing this product name are related with the data (part code) showing the above-mentioned parts, and are passed to a production control system and a demolition information creation system as product data.

[0024] A sign, an alphabetic character, etc. can express a product code and a part code. Moreover, it is good also as composition which uses a magnetic code, or stores a code in an IC card, and is used.

[0025] The code given to parts is used for recognition of parts in a production line. For example, an assembly robot reads a part code, collates with the packaging-design data which a production control system manages, and the parts concerned are mounted with a bolt etc., corresponding to directions of packaging-design data. Based on the above-mentioned product data, further, data, such as a serial number and the date of manufacture, are determined by the production control system 130, for example, are given to the produced product in the form of a bar code, and a product name and a form number are shipped to it. These data are sent to a sales management system 140. Any of online and a storage are sufficient as delivery of data here.

[0026] A sales management system 140 is connected with the terminal 142 of a dealer on-line. A means 144, for example, a bar code reader, to read product data is connected to the terminal 142 of a dealer. Thereby, a sales management system 140 can receive the product data of the sold product, and a selling time. Moreover, a sales management system 140 is connected with the system 200 of the management center B mentioned later. This connection can also be made with online or a storage. Here, the data of the shipment for every kind of product are sent. Those data are used for the estimate of the future number of demolition, calculation of costs, etc.

[0027] The demolition information creation system 120 opts for a demolition procedure from packaging-design data. And based on drawing data, a concrete demolition procedure can be graphic-ized and the demolition guide which consists of 3-dimensional data etc. can be created. Correlation with a part code is taken at this time. Moreover, the demolition information creation system 120 creates the guide of processing required since it recycles with reference to a recyclable display and sheathing processed data based on quality-of-the-material data. Furthermore, about the member to discard, if the data and the special abandonment method of processing required for the reason are required, the data will be created with reference to quality-of-the-material data, packaging-design data, sheathing processed data, etc. It is related with a part code also with this. That is, when a part code is given, the demolition procedure corresponding to it, the guide of recycling, an art, abandonment processing information, etc. are constituted so that it may be obtained as demolition information. Drawing 3 mentioned later shows the example.

[0028] The demolition information registration system 150 associates the data about the above-mentioned demolition, i.e., demolition information and product data, and stores them in a database 152 (what realizes the database 13 of drawing 1) for every product. By doing in this way, corresponding demolition information can be searched for based on product data. The file system which has an optical disk unit, a magnetic disk unit, etc. as storage can constitute a database 152. The management center B is provided with this demolition information through online or a storage.

[0029] As shown in drawing 5 , the management center system 200 of a management center B has the demolition managerial system 230 carry out the transfer to the demolition information database 210 which accumulates the demolition information offered by each maker, the shipment information database 220 which accumulates the shipment information inputted from each maker or a dealer, and the demolition contractor D of demolition information, check of the demolition processing report from a demolition contractor D, the calculation of demolition costs and payment processing, the claim processing of demolition costs, etc. The demolition information database 210 and the shipment information database 220 are constituted by the file system which has large capacity storage, such as an optical disk unit and a magnetic disk unit, respectively. The demolition managerial system 230 can consist of computer systems, and can deliver now and receive data through a communication device or a storage. Although the computer system is not illustrated, the general-purpose system which has a central-process unit, a primary storage, an interface, external storage, an input unit, display, a printer, a communication controller, etc. can be used for it, for example.

[0030] When a product is sold to a consumer from a dealer, you may enable it to read shipment report information in a cut-form. For example, an optical character reader, a bar code reader, etc. can be used. In this example, it has the bar code reader 240.

[0031] The demolition contractor's D demolition processing system 400 is equipped with the processing section 410 which processes various data, the storage 420 which memorizes a program, data, etc., the input section 430 which inputs directions, data, etc., the display 440 which carries out the display output of the demolition procedure etc., the communications control section 460 for performing communication with the other systems 200, for example, a demolition managerial system, and the printing section 450 to

print as shown in drawing 6 . As for the input section 430, it has a bar code reader 432 and a keyboard 434 at least. A bar code reader 432 is for reading the bar code given to the product which should be disassembled, the bar code given to the disassembled parts. The demolition information sent from the management center B is accumulated at storage 420.

[0032] Moreover, the weight sensor 470 is connected to the processing section 410 in this example. This measures the weight of the disassembled parts. With the product to disassemble, since the ranges of the size of a weight differ, two or more sorts of weight sensors by which measurement ranges differ are prepared in fact.

[0033] Next, operation of the demolition system by this example is explained. As shown in drawing 1 , the maker A of a product performs a design and manufacture 10 of a product first. These are performed based on the design data created by computer-aided design. At this time, a design data and product data are created, respectively. Then, product data registration processing 11 in which product data are registered is performed. This product data is for consisting of the maker name of a product, a product name, form, a serial number, and a manufacture fiscal year, and specifying a product. Moreover, since a product is disassembled and processed as waste, the demolition information containing the demolition procedure of a product, the part (member) which constitutes a product, and its art is created by the demolition information creation system 120. and the member which registers these demolition information -- composition and art registration 12 are performed These registration is performed to a database 13.

[0034] On the occasion of this registration, it is carried out by making correlation with product data and a part code, and demolition information. Product data are data which specify a product as mentioned above.

[0035] On the other hand, a part code is given for the product code to the part in the form of a bar code again at the produced product, respectively. The example is shown in drawing 2 . Drawing 2 is the example of the exterior unit 20 of an air conditioner. In this case, the product code 21 is given to the end side of a case, and the part code 22 is given to the member which constitutes the case itself at a part of the front of this case. In addition, although only the product code and the part code are attached, other information may be attached here. Moreover, a manufacture maker name, a product name, product form, the serial number, the manufacture fiscal year, etc. may be attached possible [viewing] apart from the code. Of course, these information can be included in a product code.

[0036] the product data registered into the database 13, and a member -- composition and art data are submitted to the management center B What is necessary is just to send presentation of these data to the management center B collectively at the time of the product selling start concerned. Data can be sent on-line and also they are good as composition which records on record media, such as a disk and a tape, and offers this. The management center B keeps the data about this product in the demolition information database 210. It is sent to the demolition information database 210 of this management center B by other makers, respectively. Therefore, the product code is attached by the coding scheme which also attaches distinction of a maker.

[0037] Moreover, Maker A performs sale 14 of a product. If a product is sold, the selling terminal 142 is a bar code reader 144, will read a product code in the bar code which shows the product code given to the product, and will send it to a sales management system 140. A sales management system 140 performs the shipment report of a product while performing sales management processing in response. This shipment report reports selling time for a product code to the management center B. It is more efficient for the amount collected to some extent like the unit for one month in fact to report. A report is performed by online or the storage.

[0038] In addition, although considered as the composition sent from a maker's sales management system 140 in this example, this invention is not restricted to this. For example, it is good also as composition directly sent from a dealer. Moreover, this report can also be sent off-line by the cut-form of a fixed form. In this case, in order to attain easy-ization of the data input in the management center B, all or some of the above-mentioned product data are beforehand recorded on the cut-form. Record is performed by the bar code. Moreover, optical reading may carry out by easy printing.

[0039] The management center B stores and saves these in the shipment information database 220. In addition, when a shipment report is sent by signing chits, this is read by the bar code reader 240.

[0040] Moreover, the management center B sends the accumulated demolition information to the demolition contractor's D demolition processing system 400. However, since this demolition information includes the technical information about a product, it puts on a secret state during a fixed period, and you may make it make it send to the demolition processing system 400 as occasion demands after that for example. In this case, as a fixed period, it can consider as a guarantee-of-quality period etc., for example. Moreover, it is good also as years assumed beforehand.

[0041] Furthermore, the management center B authorizes the demolition processor which can perform specific processing, and only a contractor with the authorization may enable it to receive demolition

information. In this case, with specific processing, there may be dangerous processing, special processing, etc., for example. In addition, for authorization, it can consider that it is contingent [on having the fixed treatment facility that installation of the computer system which can realize a demolition managerial system can be performed, having responded to secrecy undertaking, etc.].

[0042] Next, if a product is taken out by Consumer C as waste, Processor D will perform acceptance processing 17 about this. In this acceptance processing 17, it is carried out in the demolition processing system 400. That is, the product code is read about the discarded product using a bar code reader 432. The read product code is sent to the processing section 410. The processing section 410 searches a product code for the demolition information stored in storage 420 as a key. When the corresponding demolition information exists, the information is read and it displays on a display 440. When the corresponding demolition information does not exist in storage 420, the demolition information about the product is sent and required of the management center B. If the management center B has a demand, it will read the demolition information on relevance from the demolition information database 210, and will send it to the demolition processing system 400 of a requiring agency. You may make it investigate whether the management center B has received authorization of the demolition processing of a requiring agency about the product here. What is necessary is to prepare the list in which authorization conditions were shown for every processor as a means to investigate this, for example, to search this list by using the code of a processor as a key, and just to investigate whether it is that to which the product can treat the processor concerned.

[0043] Next, Processor D performs decomposition and processing 18 in which the collected product is disassembled, according to the demolition procedure displayed. At this time, from the main part of a product, whenever it disassembles parts, about the disassembled parts, the part code is read by the bar code reader 432, and is inputted into the demolition processing system 400. Moreover, the weight of the disassembled parts is measured by the weight sensor 470. This measured value is inputted into the processing section 410.

[0044] The processing section 410 confirms whether dissolve in the right procedure as compared with the demolition procedure given for demolition information, whenever the part code of the disassembled parts is inputted. Here, if demolition is not performed as the procedure and the processing section 410 will judge, that will be displayed on a display 440. A demolition company can be taken as the demolition as a procedure by redoing the procedure, when this is seen and the procedure is mistaken. Moreover, when there are a deficit of parts and breakage, that is inputted from a keyboard 434. Moreover, the measured value of a weight is incorporated and it is totaled for every parts of the same kind. Thereby, the weight of reusable resources and the weight of the parts discarded can be known.

[0045] These processing results are sent to the managerial system 200 of the management center B as a demolition report. Presentation of this processing result can be performed on-line through a communication line. Moreover, it is possible to carry out in form of recording on record media, such as a magnetic disk, and submitting the record medium concerned, to carry out by the cut-form of a fixed form, etc.

[0046] The demolition processing managerial system 230 of the management center B checks whether compared the data of the art beforehand registered into the database 13 with the submitted processing result, and processing has been carried out appropriately. And according to the content of processing, costs are calculated and a debit slip is published so that processing costs may be paid to Processor D. In addition, calculation of costs and issue of a debit slip are summarized for every fixed period, and it may be made to perform them.

[0047] Moreover, the demolition processing managerial system 230 records the information on the disassembled purport about the corresponding product which is stored in the shipment management database 220. In addition, it combines and you may make it also record information, such as a deficit about a product, and breakage, at this time. If it does in this way, a maker can use these information as data which analyze the life and trouble of a product, and can absorb it as cost of development of a part of cost of demolition processing of the following product.

[0048] Moreover, the management center B can know the amount of reuse resources while being able to perform the check of whether demolition is performed correctly. Positive operation and its check of processing after recovery of product waste can be performed objective by this, and it is effective as a recycle system.

[0049] In addition, if the data of the purport taken over, respectively are sent to the management center B when other contractors for recycling take over each part article which the demolition contractor disassembled, and when the abandonment processor of the speciality takes over about the member which must be discarded, a check can carry out more certainly here.

[0050] Next, the relation of the member which constitutes a product and it in drawing 3 is shown. A

product 30 consists of parentages of A0, A1, A10, and A11 of members 31, 32, 33, and 34, and these are form combined by the arts X0, X1, and X10 of the demolition arts 35, 36, 37, and 38, and X11. Since these relations can be expressed hierarchical, the method of decomposition and processing is also possible for them to the detailed level of a member. Therefore, the payment [calculation of the processing costs according to the grade of processing is possible, and / the costs to a processor] by making processing costs correspond to a member and an art rationally.

[0051] Although the above-mentioned example showed the example for which each of a maker, a management center, and a processor has the managerial system, this invention is not limited to this. For example, a processor cannot have a managerial system but can also be considered as the composition which processes off-line to a management center.

[0052] Although a product code and a part code are composition prepared separately, respectively, these may be connected and a code may consist of the above examples.

[0053] Moreover, although premised on an operator dissolving in the above-mentioned example, this invention can be applied when a robot dissolves. In this case, a robot's sequence program can be created from demolition information. According to this, the system of the reprocessing plant for the industrial waste using the robot etc. of a product can be realized now from now on.

[0054]

[Effect of the Invention] According to this invention, it decomposes and processes proper after recovery of the industrial waste of a product, and recycling is possible and a product can be certainly recycled for a maker. Moreover, also to a processor, an art and the check of whether to actually have processed are possible and the calculation of costs and payment according to the grade of processing can be performed rationally.

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the whole system composition which shows one example of this invention.
[Drawing 2] It is the example of a display of the product in which one example of this invention is shown.
[Drawing 3] It is the composition of the art of the product in which one example of this invention is shown.
[Drawing 4] The block diagram showing the outline of the maker structure of a system used in the example of this invention.
[Drawing 5] The block diagram showing the outline of the management center structure of a system used in the example of this invention.
[Drawing 6] The block diagram showing an example of the composition of the management demolition processing system used in the example of this invention.
[Description of Notations]
A-- -- a maker, B-- management center, C-- consumer, and D-- -- a demolition contractor, 10 -- designs and production, 11 -- product data registration, and 12 -- -- a member -- composition and art registration, and 13 -- -- a database, 14 -- sale, 15 -- demolition processing management, and 17 -- -- acceptance processing, 18 -- decomposition and processing, 19 -- processing result, and 20 -- -- a product, 21 -- product code, 22 -- part code, and

---

[Translation done.]